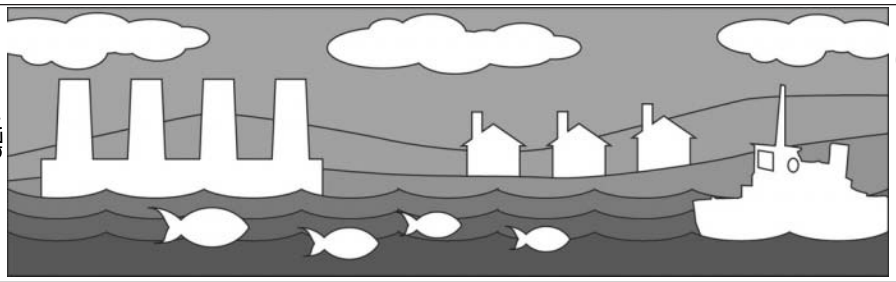


Lower Duwamish Waterway Site

August 2006

A comprehensive sampling program to assess contamination in the Lower Duwamish Waterway is nearing completion. This fact sheet provides updates on that work, an advisory about eating fish from the waterway, Terminal 117 and Slip 4 cleanup plans, work to control pollution sources, and community involvement.

Studies Reveal PCB Patterns

The Lower Duwamish Waterway Group (King County, City of Seattle, Port of Seattle, and The Boeing Company), with oversight by the U.S. Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology), has almost completed a comprehensive sampling program to study contamination in sediments (mud) and in plants and animals that live in the waterway.

The work includes hundreds of samples taken in 2004 and 2005.

- Almost 200 surface sediment samples were analyzed for over 50 chemicals of concern, such as PCBs (polychlorinated biphenyls). PCBs are manmade chemicals that are toxic to organisms in the mud, build up in fish, and can harm the health of people who eat contaminated fish or shellfish.

- Forty-seven of these samples were also tested for their toxicity to animals living in the sediments.

- Almost 200 samples of tissue from fish, shellfish, and small animals that live in the mud were analyzed for selected chemical contamination.

- Water seeping from the river bank was tested for chemical contamination.

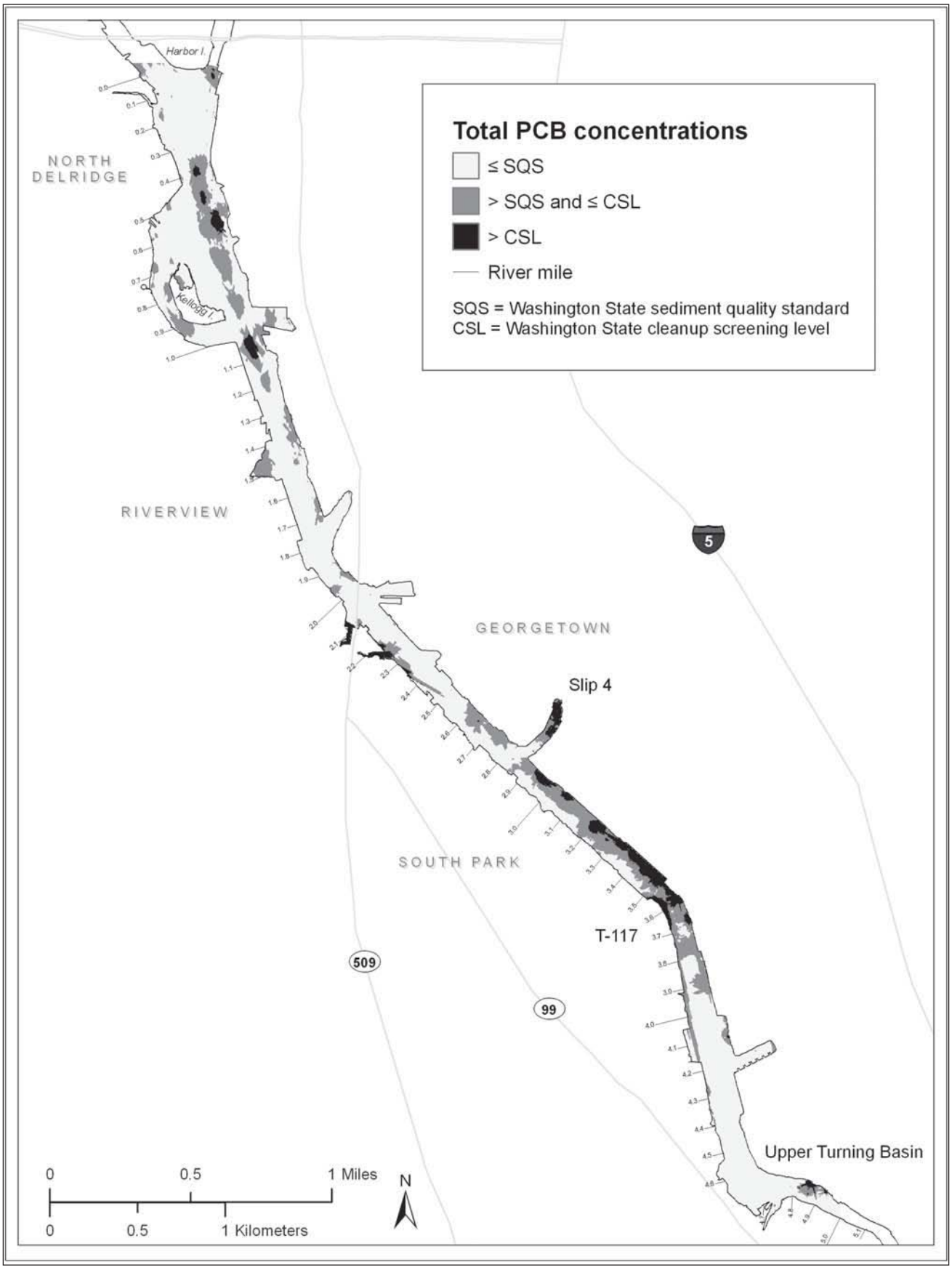
- Sediments from the riverbed (up to 12 feet deep) were tested for chemical contamination.

In addition, studies evaluated the potential for sediments to move within the waterway.

Data from most of these studies is already available to the public (*see* "For More Information," *page 6*). All the data will be made available as data reports are completed.

An initial review of the data confirms the pattern of sediment contamination seen in past sampling events: PCBs can be found at low to moderate levels throughout the waterway, with a few locations showing much higher concentrations. Other contaminants, such as metals, tend to be at levels of potential concern in only a few places. EPA and Ecology are working with the Lower Duwamish Waterway Group to assess whether any additional data collection is needed to determine what areas of contaminated sediments need to be cleaned up.

(See map of PCB sampling , page 2)



Sampling shows patterns of PCB contamination.

Fish Consumption Advisory Updated

PCB concentrations in fish and shellfish collected from the waterway in 2004 were higher than in the past. Additional sampling in 2005 showed lower PCB concentrations than in 2004, but still higher than in the past. The Washington State Department of Health evaluated the 2004 fish and shellfish data, and then revised the fish advisory for the Lower Duwamish Waterway. The health department now advises people not to eat resident fish and shellfish from the Duwamish. Salmon from the Duwamish spend most of their lives in Puget Sound and the Pacific Ocean and are expected to have lower levels of contamination than other fish from the Duwamish. The health department is now studying contamination in Puget Sound salmon.

Reports Evaluate Risk to People and the Environment

The Lower Duwamish Waterway Group is using all of the chemical contamination data collected to date to evaluate risks the contamination poses to human health and the environment. This evaluation, in reports called human health and ecological risk assessments, will ultimately lead to a decision about which contaminated sediments need to be cleaned up. EPA and Ecology will get input from affected parties during the agencies' review of the draft reports. In addition, there will be a formal opportunity for the public to comment on the risk reports when EPA and Ecology propose a river-wide cleanup plan.

Potential Cleanup Methods Identified

The Lower Duwamish Waterway Group has completed a report that identifies potential cleanup technologies for the Lower Duwamish Waterway. The Group is continuing to work with EPA, Ecology, and other interested parties on identifying contaminated waterway sediments that need cleanup and on refining the list of technologies most likely to succeed in the cleanup.

Terminal 117 Upland Area Cleanup Expanded

Terminal 117 (T117) is one of several areas at the Lower Duwamish Waterway site chosen for early sediment cleanup (*see map, page 2)*. It is on the west bank of the river in South Park. In the summer of 2005, EPA selected a cleanup plan for contaminated sediments at Terminal 117.

At that time, as a result of EPA, Ecology and stakeholder concerns, EPA asked the Port of Seattle to take more samples in the upland area. Due to high levels of PCBs found in those samples, EPA determined that the upland area should be cleaned up first to reduce the risk of recontaminating the sediments after they are cleaned up.

Cleanup of certain areas of highly contaminated soil is scheduled to begin in September 2006. These areas were selected because of their high PCB concentrations, the risk to the environment, and the risk of people coming into contact with the soil. The Port of Seattle will fund the work and perform it under EPA oversight.

The community expressed concerns about the overall upland cleanup plan, especially that it might limit future use of the site. As a result of these concerns, the Port agreed to remove soil to reduce PCBs to a level that would make the property suitable for all future uses discussed by the community. As a result of the Port's commitment to expand the cleanup, EPA will hold another public comment period to get further public input on the complete upland cleanup. We expect this comment period to be in early 2007.

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Cleanup Selected for Slip 4

Slip 4 is another one of the areas chosen for early sediment cleanup. It is on the east bank of the waterway in the Georgetown community (*see map, page 2*).

EPA proposed a cleanup alternative for Slip 4 in February 2006. After considering public comments, EPA decided to go forward with that cleanup proposal. The cleanup will include these actions:

- Dredge or excavate the contaminated sediments with the highest PCB concentrations.
- Cover the remaining contaminated sediments, which have lower concentrations of PCBs, with clean materials.
- Excavate bank material along the eastern shoreline of the slip, place sloping caps, and create new mudflat habitat.
- Dispose of sediments at a commercial disposal facility.
- Remove asphalt, creosote-treated timbers and piles, and other debris, as needed to complete the cleanup.

Cleanup details are available in EPA's action memorandum for Slip 4 and other technical documents. Responses to public comments are in the responsiveness summary attached to the action memorandum (s*ee* "For More Information," *page 6*). The actual cleanup is planned to begin in October 2007. The City of Seattle and King County will fund the work and perform it under EPA oversight. The City of Seattle is planning to purchase the Slip 4 cleanup area.

Source Control Will Limit Recontamination of Sediments

Source control is the process of finding and then stopping or reducing releases of pollution to waterway sediments. Ecology, EPA, the City of Seattle, King County, the Port of Seattle, Puget Sound Clean Air Agency, and the City of Tukwila are all working on source control for the Duwamish. Some of the activities are summarized below.

- From 2003-2005, King County and the City of Seattle conducted over 950 business inspections in the Lower Duwamish drainage/combined sewer service area. Inspectors worked with owners to reduce the pollution discharged to the river via storm water and combined sewer overflows.
- In 2006, the City of Seattle completed temporary actions to clean up and cover PCBs that were found in dirt on streets, in a storage lot and in two residential yards in a small area of South Park. The City is developing final cleanup plans for this area.
- In 2006, Ecology completed source control action plans for Terminal 117 and Slip 4. These plans, which describe the source control work and monitoring needed for each site, can be found on Ecology's website (s*ee page 6*).
- In summer 2006, the City of Seattle began a pilot test to determine whether increased street sweeping can reduce the pollution discharged to the public storm drain system. New high efficiency street sweepers are being used in three test areas, including one near the Duwamish. Sweeping will take place weekly, and extensive sampling will be used to measure the amount of dirt and chemicals removed by the sweeping.

The City of Seattle is testing whether high-efficiency street sweepers can reduce pollution discharged to storm drains.

EPA and Ecology Work with the Community

EPA and Ecology have been encouraging the community to be involved with the Duwamish site since 2000. In February 2006, EPA awarded a technical assistance grant to the Duwamish River Cleanup Coalition/Technical Advisory Group. This is the second EPA grant awarded for the site. The grant funds are being used mainly to continue paying technical advisors to review and provide comments on technical documents about the site. In addition, Ecology has awarded public participation grants to the Duwamish River Cleanup Coalition for public education and outreach.

In 2006, EPA purchased simultaneous interpretation equipment, which was used for the first time at a July Port of Seattle Commission meeting about the Terminal 117 cleanup. This equipment allows an interpreter to speak in another language to people who use earphones and can be seated in any part of the meeting room.

Background

The Lower Duwamish Waterway has served as Seattle's major industrial corridor since it was created in the early 1900s by the widening and straightening of the Lower Duwamish River. Sources of past and present discharges to the waterway include boat manufacturing and repair, marina operations, airplane parts manufacturing, and metals fabrication. In addition, ten combined sewer overflows, three emergency overflows, and over two hundred storm drains discharge to the waterway.

EPA added the Lower Duwamish Waterway site to its Superfund list of hazardous waste sites in 2001. Ecology added the site to its hazardous sites list in 2002. The Lower Duwamish Waterway Group has been investigating the contamination and potential cleanup solutions under a legal agreement with Ecology and EPA.

U.S. Environmental Protection Agency
1200 Sixth Avenue, ETPA-081
Seattle, Washington 98101-1128

Lower Duwamish Waterway
Superfund Site Update
Seattle, Washington
August 2006

Si desea hablar con alguien que habla español, llame a Pamela Emerson, EPA 206-553-1287.

For More Information

Read more about the Duwamish site on the EPA website: *http://yosemite.epa.gov/r10/cleanup.nsf/sites/lduwamish*

Read more about Duwamish source control on the Ecology website: *http://www.ecy.wa.gov/programs/tcp/sites/lower_duwamish/lower_duwamish_hp.html*

Many documents also are available for reading at these locations. Please call for an appointment:
EPA Region 10 Records Center
1200 Sixth Avenue
Seattle, WA 206-553-4494
Georgetown Gospel Chapel
6606 Carleton Avenue South
Seattle, WA 206-767-3207
Washington State Department of Ecology
3190 160th Avenue SE
Bellevue, WA 425-649-7190

Questions?

If you have questions about the Lower Duwamish Waterway site, please contact one of these people:

General Information
Cindy Schuster, EPA Community Involvement Coord.
206-553-1815, toll-free at 800-424-4372
schuster.cindy@epa.gov
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hiltner.allison@epa.gov
Source Control
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Ecology Project Manager, 425-649-7023
daca461@ecy.wa.gov
Community Advisory Group
BJ Cummings
Duwamish River Cleanup Coalition
206-954-0218
info@duwamishcleanup.org
www.duwamishcleanup.org

Alternative formats are available. For reasonable accommodation, please call Cindy Schuster. TTY users, please call the Federal Relay Service at 800-877-8339 and give them Cindy Schuster's phone number.